[4910-13-P] ·

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 121, 125, 127, 135, and 145

[Docket No. ; Notice No. ]

RIN:

Operational and Structural Difficulty Reports

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of Proposed Rulemaking.

The Federal Aviation Administration (FAA) proposes to revise the current reporting requirements for certificate holders and certificated domestic and foreign repair stations concerning failures, malfunctions, and defects of aircraft, aircraft engines, systems, and components that affect aviation safety. The proposed rule would clarify and standardize the type of information necessary for the FAA to identify trends that may affect aviation safety. This action was prompted by an internal FAA review of the effectiveness of the current reporting system and by air carrier industry concern over the quality of the data being reported by air carriers and the timeliness of the FAA's distribution of the reported information. The objective of the proposed rule is to update and improve the current reporting system to effectively collect and disseminate clear and concise information, particularly with regard to aging aircraft, to the aviation industry.

DATES: Comments must be submitted on or before

ADDRESSES: Comments on this notice should be delivered, in triplicate, to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC-200), Docket No. 800 Independence Avenue, SW., Washington, DC 20591. Comments delivered must be marked Docket No. . Comments may be examined in Room 915G weekdays between 8:30 a.m. and 5 p.m., except on Federal holidays.

FOR FURTHER INFORMATION CONTACT: Benjamin J. Burton, Aircraft Maintenance Division, AFS-330, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-3797.

### SUPPLEMENTARY INFORMATION:

#### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Comments relating to the environmental, energy, federalism, or economic impact that might result from adopting the proposals in this notice are also invited. Substantive comments should be accompanied by cost estimates. Comments should identify the regulatory docket or notice number and should be submitted in triplicate to the Rules Docket address specified above. All comments received on or before the closing date for comments specified will be considered by the Administrator before taking action on this proposed rulemaking. The proposals contained in this notice may be changed in light of comments received. All comments received will be available, both before and after the closing date for

comments, in the Rules Docket for examination by interested persons. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include a preaddressed, stamped postcard on which the following statement is made: "Comments to Docket No. ." The postcard will be date stamped and mailed to the commenter.

#### Availability of the NPRM

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Inquiry Center, APA-220, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-3484.

Communications must identify the notice number of this NPRM.

Persons interested in being placed on the mailing list for future NPRMs should request from the above office a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

### Background

Sections 121.703, 127.313, and 135.415 of 14 CFR require that holders of certificates issued under part 121, 127, or 135 submit reports on certain specified failures, malfunctions, or defects of specific systems and on all other failures, malfunctions, or defects that, in the opinion of the certificate

holder, have endangered or may endanger the safe operation of an Section 125.409 requires that part 125 certificate holders report each failure, malfunction, or defect. addition, §§ 145.63 and 145.79 contain provisions for certificated domestic and foreign repair stations, respectively, to report defects or recurring unairworthy conditions of any aircraft, powerplant, propeller, or any component thereof to the Both certificate holders and certificated repair stations must submit the reports described above to the FAA. accordance with the Flight Standards' Service Difficulty Program, set forth in FAA Order No. 8010.2, the information is reviewed and evaluated by the Principal Maintenance Inspector (PMI) and mailed to the FAA's Mike Monroney Aeronautical Center in Oklahoma City, OK, for input into the Service Difficulty Reporting Subsystem (SDRS). The report data is entered into the SDRS and compiled to generate a weekly summary that is distributed to aircraft manufacturers, air carriers, repair stations, members of the general aviation community, and various offices of the FAA. Additional review and evaluation of the data are accomplished by the aeronautical center to identify trends or significant reports. The appropriate FAA office is notified if trends or significant safety items are noted.

Sections 121.705, 127.315, and 135.417 contain provisions for submitting a summary report to the FAA on mechanical

difficulties or malfunctions that interrupt a flight or cause unscheduled aircraft changes, stops, or diversions en route that are not required to be reported under §§ 121.703, 127.313, and 135.415, respectively. Section 121.705 also requires a summary report containing information on the number of aircraft engines removed prematurely because of a malfunction, failure, or defect and the number of propeller featherings that occur in flight for other than training purposes, demonstrations, or flight checks.

Section 127.315 only requires further summary reports containing information on the number of engines removed, and § 135.417 only requires further summary reports on the number of propeller featherings that occur.

#### History

The explosive decompression and structural failure of a Boeing 737-200 series aircraft on April 28, 1988, focused worldwide attention on aging air carrier fleets. As a result of this event, a joint effort between the air carrier industry and regulatory authorities was established to address the continued airworthiness of the air transport fleet. This effort led to the establishment of the Airworthiness Assurance Task Force (AATF).

The AATF's activities focused on five major efforts that were a direct result of airworthiness issues presented by airlines and aircraft manufacturers at the First International Conference on Aging Airplanes, which was hosted by the FAA in June 1988. One of the issues presented at the conference was the

need to ensure an adequate communications system between airlines, manufacturers, and the FAA. This task was assigned to the Improved Airworthiness Communications Steering Committee (IACSC) Data Collection Subcommittee of the AATF.

The FAA attended joint FAA/industry meetings with the IACSC to discuss problems associated with §§ 121.703, 121.705, 145.63, 145.79, and the Service Difficulty Report (SDR) program. Issues addressed in the March 21, 1991, General Accounting Office (GAO) report entitled Changes Needed in FAA's Service Difficulty Reporting Program and written recommendations from IACSC surfaced as points of discussion during the FAA/industry meetings. Members of the air carrier industry and FAA personnel expressed concern that, because of a lack of a standardized reporting format, there are varied interpretations of what is required to be reported. It was also noted that report information submitted by air carriers is inconsistent from airline to airline and results in incomplete data. In addition, air carriers voiced concern about the timeliness of the FAA's dissemination of SDR information. The subcommittee noted that the manual data entry of reports into the SDRS delays the distribution of information to the airlines.

The IACSC also noted that the current reporting requirements of § 121.705 are unnecessary because the data reported is reliability information that does not affect flight safety. The subcommittee further stated that this regulation does not provide sufficient guidance on the type or scope of the information to be

reported; therefore, reporting is inconsistent. Reliability information currently must be monitored in accordance with § 121.373. Consequently, ARAC did not believe § 121.705 was necessary and suggested that it be deleted.

In addition, the IACSC recommended proposing a new § 121.704. This new section specifically would address defects in aircraft structures and problems normally associated with aging aircraft. The IACSC further recommended that the current reporting requirements of §§ 121.703(a)(14) and 121.703(a)(15) relating to aircraft structures be revised and transferred to the proposed new section. The proposed reporting requirements would collect information on discrepancies found in primary structure or principal structural elements. In addition, information on discrepancies found in composite materials that comprise primary structure or principal structural elements would be collected.

The IACSC also recommended revising §§ 145.63 and 145.79 to allow part 121 certificate holders to delegate to a certificated repair station the task of submitting the reports required under proposed §§ 121.703 and 121.704 when a repair station discovers a malfunction or defect. This recommendation would serve to reduce the number of duplicate reports from air carriers and repair stations, and would improve repair station reporting.

The IACSC was realigned as the International Airworthiness
Communications Working Group (IACWG) under the Aviation
Rulemaking Advisory Committee (ARAC) on Air Carrier/General
Aviation Maintenance Issues. The ARAC was established under FAA

Order No. 1110.119, dated February 22, 1991, to advise the FAA on aviation safety-related rulemaking activity on a wide range of issues. Following the evaluation of the IACWG's recommendation for the revision of part 121, the ARAC tasked the group with preparing similar recommendations for operations conducted under parts 125, 127, and 135.

During preparation of the recommendations for parts 125, 127, and 135, the IACWG noted that the current reliability reporting requirements of §§ 127.315 and 135.417 are also unnecessary. There is no equivalent section in part 125.

Therefore, the working group recommended deleting §§ 127.315 and 135.417, which would be consistent with the IACWG's proposed deletion of § 121.705. Currently, reliability information for operations conducted under these parts must be monitored in accordance with §§ 127.136 and 135.431.

Subsequent discussions within the working group revealed that § 121.705(a) would need to remain in the regulation so that PMI's would continue to receive timely information from air carriers on mechanical interruptions of flights caused by malfunctions or defects that are not required to be reported to the SDRS. The working group, therefore, recommended deleting only §§ 121.705 (b) and (c), 127.315(b), and 135.417(b), which relate to premature engine removals and in-flight propeller featherings.

#### The Proposed Rule

Based on the joint discussions with representatives of the air carrier industry, recommendations from the ARAC, and an internal review of the SDR program, the FAA recognizes that improvements to reporting requirements and the SDR program are necessary. This proposed rule presents actions to correct deficiencies cited in the FAA/industry meetings and the GAO report, and was developed based on the recommendations from the ARAC.

This proposed rule would modify the current reporting requirements for air carriers and repair stations to standardize report information. The proposed rule also would explicitly permit the submission of the required reports in an electronic form to encourage reporting that will give the FAA information on a near real-time basis. In addition, the proposed rule would revise the current reporting requirements for air carriers to include the reporting of certain occurrences or detections of failures, malfunctions, or defects of aircraft, aircraft engines, systems, and components that occur during ground operations and that could affect the safety of flight operations.

The proposed rule would also allow part 121, 125, 127, or 135 certificate holders to delegate to a certificated domestic or foreign repair station the task of submitting operational and structural difficulty reports to the FAA on behalf of the certificate holder when the repair station discovers defects or unairworthy conditions. This provision would eliminate duplicate

reporting of a problem by the air carrier and the repair station.

The proposed rule would delete §§ 121.705(b) and (c), 127.315(b), and 135.417(b), removing the requirement for submitting summary reports on premature engine removals and in-flight propeller featherings because this information is reliability-related data rather than safety-of-flight data. The proposed rule also would add new §§ 121.704, 125.410, 127.314, and 135.416 to specifically address the reporting of structural defects and problems normally associated with aging aircraft.

Sections 121.703, 125.409, 127.313, and 135.415 would be revised to focus on the reporting of operational defects, and new §§ 121.704, 125.410, 127.314, and 135.416 would be added to manage the reporting of structural defects.

Section 125.409 would be revised by requiring reports for specific events rather than reports of the occurrence or detection of every failure, malfunction, or defect. The proposed change eliminates the reporting of defects that do not compromise the airworthiness of the aircraft. The proposal would add requirements to part 125 that are equivalent to the reporting requirements in proposed §§ 121.703, 127.313, and 135.415.

In revising the part 135 reporting requirements, the FAA recognizes that aircraft maintained in accordance with part 135 may operate under part 91 at times; however, all part 135 reporting requirements would apply as long as the aircraft is maintained under part 135.

New reporting requirements have been developed for each of the proposed sections to standardize report information. Required reporting information has been revised to include total aircraft flight time to aid in evaluating corrosion and aircraft structural fatigue. In addition, the amount of elapsed time since the last maintenance performed on components has been added to determine how long components have been in service. Information on manufacturer's part numbers and serial numbers has been added to develop trend information. Reporting procedures would also be revised to encourage the electronic transmission of data directly to the location where the data base is maintained. (Presently, the data base is maintained at the Mike Monroney Aeronautical Center.) A program that enters SDR data electronically into the SDRS is operational. The electronic submission of data provides a database that is near real-time. Data is uploaded and available the next business day. proposed rule would also provide for collecting information on aborted or "rejected" takeoffs caused by the failure, malfunction, or defect of an aircraft component or system. information would be used to generate statistical data for future analysis of the safety implications such events may have on flight operations.

Sections 145.63 and 145.79 would be revised to allow part 121, 125, 127, and 135 certificate holders to delegate to certificated domestic and foreign repair stations the task of submitting the reports required under the proposed sections of

parts 121, 125, 127, and 135 on behalf of the certificate holder when the repair station discovers a malfunction or defect. This proposed change would eliminate the requirement for the air carrier and the repair station to report the same problem to the FAA. However, the air carrier would not be relieved of the responsibility for these reports.

The purpose of the proposed regulation would be to enhance air carrier safety by collecting additional and more timely data that identifies mechanical failures, malfunctions, and defects which may be a serious hazard to the operation of an aircraft. The information collected would be used to develop and implement corrective actions to help prevent future occurences of these failures, malfunctions, and defects once they have been identified.

### General Discussion of the Proposed Rule

### Sections 121.703, 125.409, 127.313, and 135.415

The proposed rule would change the titles of §§ 121.703, 127.313, and 135.415 from "Mechanical reliability reports" to "Operational difficulty reports." The proposed rule also would change the title of § 125.409 from "Reports of defects or unairworthy conditions" to "Operational difficulty reports." The title changes would reflect more accurately the type of information collected, which may be categorized as primarily operational and safety-related information rather than reliability and failure information as is implied by the current titles.

## <u>Sections 121.703(a)(1), 125.409(a)(1), 127.313(a)(1), and 135.415(a)(1)</u>

Proposed §§ 121.703(a)(1), 125.409(a)(1), 127.313(a)(1), and 135.415(a)(1) would specify that a certificate holder must report each failure, malfunction, or defect involving any fire, rather than only those fires that occur during flight, as is currently prescribed by the regulations. The proposed changes would ensure that information is also reported on fires that occur on the ground because these fires may affect the safety of flight. In addition, the current requirement to report whether the related fire-warning system functioned properly in the event of a fire caused by a failure, malfunction, or defect also would be required to be reported by the proposed rule.

Current §§ 121.703(a)(2), 127.313(a)(2), and 135.415(a)(2) require certificate holders to report failures, malfunctions, or defects concerning fires during flight that are not protected by a related fire warning system. Proposed §§ 121.703(a)(1), 125.409(a)(1), 127.313(a)(1), and 135.415(a)(1) would include this requirement because failures, malfunctions, or defects involving any fire must be reported by the certificate holder.

## <u>Sections 121.703(a)(2), 125.409(a)(2), 127.313(a)(2), and 135.415(a)(2)</u>

Proposed §§ 121.703(a)(2), 127.313(a)(2), and 135.415(a)(2) would revise current §§ 121.703(a)(3), 127.313(a)(3), and 135.415(a)(3), respectively, which address the reporting of failures, malfunctions, or defects involving false fire warnings

during flight. The proposed rule would require that any false fire or smoke warning requiring the use of emergency procedures be reported to ensure that the certificate holder documents occurrences that have safety-of-flight implications. This requirement also would be added to proposed § 125.409(a)(2).

Sections 121.703(a)(3), 125.409(a)(3), 127.313(a)(3), and 135.415(a)(3)

Proposed §§ 121.703(a)(3), 127.313(a)(3), and 135.415(a)(3) would require that information on damage to an engine, adjacent structure, equipment, or components caused by a failure, malfunction, or defect of an engine exhaust system be reported by the certificate holder regardless of whether such damage occurred in flight or on the ground. Proposed § 125.409(a)(3) would add the same requirements for operations conducted under part 125. Currently, §§ 121.703(a)(4), 127.313(a)(4), and 135.415(a)(4) require only that the certificate holder report to the FAA damage to an engine, adjacent structure, equipment, or components caused by an engine exhaust system during flight.

## <u>Sections 121.703(a)(4), 125.409(a)(4), 127.313(a)(4), and 135.415(a)(4)</u>

Proposed §§ 121.703(a)(4), 127.313(a)(4), and 135.415(a)(4) would revise the current requirements in §§ 121.703(a)(5), 127.313(a)(5), and 135.415(a)(5), respectively, by requiring that the failure, malfunction, or defect of aircraft or helicopter components that cause an accumulation or circulation of smoke, vapor, or toxic or noxious fumes resulting in the use of emergency procedures be reported. Proposed § 125.409(a)(4) would

add the same requirements for operations conducted under part 125. These proposed changes would eliminate the reporting of events that do not affect safety by indicating that such events would have to be reported only if emergency procedures are exercised.

The proposed change also would delete the words "during flight." The proposed reporting requirement would include events that occur in flight or on the ground and would expand the reporting of these events to the entire aircraft. The current requirements only cover these events if they occur in the crew compartment or passenger cabin.

## <u>Sections 121.703(a)(5), 125.409(a)(5), 127.313(a)(5), and 135.415(a)(5)</u>

These proposed sections would combine the reporting requirements for engine failures and shutdowns in current §§ 121.703(a)(6), 121.703(a)(7), 121.703(a)(8), and 121.703(a)(9) into proposed § 121.703(a)(5); current §§ 127.313(a)(6), 127.313(a)(7), 127.313(a)(8), and 127.313(a)(9) into proposed § 127.313(a)(5); and current §§ 135.415(a)(6), 135.415(a)(7), 135.415(a)(8), and 135.415(a)(9) into proposed § 135.415(a)(5). An equivalent § 125.409(a)(5) would also be added.

The proposed change would require that the certificate holder report failures, malfunction, or defects involving all engine flameouts and shutdowns during ground or flight operations. The proposed sections would contain a provision to exclude intentional engine shutdowns, such as those that occur

during flight crew training, test flights, and taxiing to reduce fuel consumption.
Sections 121.703(a)(6), 125.409(a)(6), and 135.415(a)(6)

These proposed sections would amend current §§ 121.703(a)(10) and 135.415(a)(10) by deleting the words "during flight." The proposed change would require that the certificate holder report the failure, malfunction, or defect of any propeller feathering system or the ability of the system to control overspeed events whether such events occur during flight or on the ground. Proposed § 125.409(a)(6) would add the equivalent requirement for operations conducted under part 125.

Sections 121.703(a)(7), 125.409(a)(7), 127.313(a)(6), and 135.415(a)(7)

These proposed paragraphs would redesignate the requirements in § 121.703(a)(11) as § 121.703(a)(7), § 127.313(a)(9) as § 127.313(a)(6), and § 135.415(a)(11) as § 135.415(a)(7), and would add new §§ 125.409(a)(7). These requirements pertain to reporting the failure, malfunction, or defect of a fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage in flight. Proposed § 127.313(a)(6) has been revised to include fuel dumping systems because these systems are now available on some helicopters.

## <u>Sections 121.703(a)(8), 125.409(a)(8), 127.313(a)(10) and 135.415(a)(8)</u>

The proposed rule would redesignate current paragraph § 121.703(a)(12) as § 121.703(a)(8); revise current § 135.415(a)(12) and redesignate it as § 135.415(a)(8); revise § 127.313(a)(10); and add new § 125.409(a)(8). These sections

require the reporting of failures, malfunctions, or defects in the operation of landing gear and landing gear doors during flight. Section 127.313(a)(10) would be revised to include equivalent requirements because helicopters are currently available with retractable landing gear. The requirements of current § 127.313(a)(10) related to helicopter structures that require major repairs would be moved to proposed new § 127.314. The proposed rule would also remove the term "unwanted" from current § 135.415(a)(12) to require that any landing gear extension or retraction, or opening or closing of landing gear doors during flight resulting from a malfunction or defect must be reported. This also would ensure consistency with the reporting requirements of parts 121 and 125.

# <u>Sections 121.703(a)(9), 125.409(a)(9), 127.313(a)(11) and 135.415(a)(9)</u>

Current §§ 121.703(a)(13) and 135.415(a)(13) relating to failures, malfunctions, or defects in aircraft braking components would be revised and redesignated as proposed §§ 121.703(a)(9) and 135.415(a)(9), respectively. The equivalent requirements would be added to § 125.409(a)(9) to provide consistency with parts 121 and 135. Section 127.313(a)(11) would be revised to include the reporting of failures, malfunctions, or defects of brake system components because wheeled helicopters are equipped with brakes. The requirements of current § 127.313(a)(11) related to cracks, deformation, or corrosion of helicopter structures would be moved to proposed new § 127.314.

The proposed rule would change "loss of brake actuating force" to "any detectable loss of brake actuating force" to clarify the interpretation of the term "loss." Some air carriers have interpreted the term "loss" to mean total loss of braking action. This proposed rule would state that failures, malfunctions, or defects that result in any reduced braking are events that are required to be reported, excluding aircraft braking component malfunctions, defects, or discrepancies that are deferrable according to the Minimum Equipment List as provided for in § 91.213:

# <u>Sections 121.703(a)(10), 125.409(a)(10), 127.313(a)(7), and 135.415(a)(10)</u>

Proposed § 121.703(a)(10), 125.409(a)(10), 127.313(a)(7), and 135.415(a)(10) would include the reporting of information relating to aborted takeoffs. Currently, air carriers are not required to report information on aborted or "rejected" takeoffs. Limited information relating to aborted takeoffs that result from an accident or incident may be available through the FAA's Accident/Incident Data Subsystem or the National Transportation Safety Board (NTSB). The proposed rule would require that information on all aborted takeoffs after initiation of the takeoff roll, resulting from a failure, malfunction, or defect of an aircraft component or system be reported to troubleshoot problems that may have safety-of-flight implications.

In addition, the current regulations require reporting of failures, malfunctions, or defects occurring in aircraft components or systems that result in any emergency action taken

during flight, excluding the shutdown of an aircraft engine. The reference to excepting engine shutdowns in current §§ 121.703(a)(16), 127.313(a)(12), and 135.415(a)(16) would not be included in this proposed paragraph because the reporting of failures, malfunctions, or defects involving any aircraft engine shutdown would be required by proposed §§ 121.703(a)(5), 127.313(a)(5), and 135.415(a)(5), respectively.

# <u>Sections 121.703(a)(11), 125.409(a)(11), 127.313(a)(9), and 135.415(a)(11)</u>

The proposed paragraphs would revise current § 121.703(a)(17) and redesignate it as § 121.703(a)(11); add new § 125.409(a)(11); and revise current §§ 127.313(a)(9) and 135.415(a)(11). The proposed rule would state that a failure of individual components that does not affect the operation of an aircraft's emergency evacuation system or components, exit doors, passenger evacuation lighting systems, or evacuation equipment need not be reported. The proposed rule also would state that failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213 need not be reported. This proposed change would allow the exclusion of an item failure, such as a burned out light bulb, provided that such a failure would not affect the integrity of any of the systems and components described above.

### Sections 121.703(c), 125.409(c), 127.313(c), and 135.415(c)

The proposed rule would revise current §§ 121.703(c), 127.313(c), and 135.415(c), and would add new § 125.409(c). These sections would extend the reporting requirements of a

failure, malfunction, or defect in any aircraft to the aircraft, aircraft systems, components, and powerplants. These items have been added to require that reports of failures, malfunctions, or defects that endanger safe aircraft operation must include those that occurred throughout the aircraft as well as all of those that involve the aircraft's subassemblies.

### Sections 121.703(d), 125.409(d), 127.313(d), and 135.415(d)

Under the proposed rule, each report of the occurence or detection of a failure or defect for a 24-hour period still would be required to be submitted within 72 hours. However, this proposed rule would revise the current requirements in §§ 121.703(d), 127.313(d), and 135.415(d) by replacing the terms "send," "mailed," or "delivered" with the term "submit." An equivalent § 125.409(d) would also be added that revises the reporting requirements currently found in § 125.409(b). This change would allow for the use of other means, such as electronic transmission via telephone facsimile or computer modem, to submit reports to the FAA to increase the timeliness of reporting. In addition, these proposed sections would change the location for submitting reports from the FAA Flight Standards District Office (FSDO) charged with the overall inspection of the certificate holder to the location where the data base is maintained. However, the certificate holder would be required to make the operational difficulty report (ODR) data available to the FSDO for examination within the time limits specified above in a form and manner acceptable to the Administrator. This change would

allow PMI's to remain informed of ODR activity, improve the timeliness of FAA processing of the data, and increase the data's availability for analysis.

Currently, § 135.415(d) contains provisions for aircraft operating in areas where mail is not collected, thereby preventing submission within the required 72 hours. In such cases, the reports are required to be submitted within 72 hours after the aircraft returns to a point where mail is collected. This provision also would be included in proposed § 125.409(d) because part 125 certificate holders often have remote operations similar to certain part 135 certificate holders.

### Sections 121.703(e), 125.409(e), 127.313(e), and 135.415(e)

These proposed sections would revise the current reporting requirements of §§ 121.703(e), 127.313(e), and 135.415(e), and would add new reporting requirements in proposed § 125.409(e) to ensure reporting consistency. Current requirements of §§ 121.703(e), 127.313(e), and 135.415(e) allow the certificate holder to submit reports in a manner and form convenient to the certificate holder. The proposed changes would standardize reporting requirements and would explicitly provide for electronic reporting.

Section 121.703(e) specifies that information detailed in paragraphs (e)(1) through (e)(6) is mandatory and that information detailed in paragraphs (e)(7) through (e)(9) is desirable additional information. Additional available information may be submitted at a later date by resubmitting the

ODR under its original Operator Control number. This action would provide the FAA with additional data. Using the original Operator Control number would overwrite the original ODR with the additional available data.

The FAA would require that the following additional information be reported: aircraft serial number; station where the discrepancy was detected; FAA-modified Air Transport Association (ATA) Specification 100 code; and aircraft total time and total cycles. A current reporting item, "type", has been replaced by manufacturer and model. The addition of these items would increase the effectiveness of operational difficulty reporting. In addition, the FAA is developing a reporting form, FAA Form No. 8070-2 (see Figure 1), to standardize reporting.

Reporting items that pertain to engine or component serial numbers and the time since the last maintenance of a component have been added to the reporting requirements. These items, along with the current requirement to report the emergency procedure effected, would be considered desirable information. The reporting of this information would be beneficial; however, collection of this information should not delay the submission of new reports.

The proposed rule would delete current §§ 121.703(g) and 121.703(h); §§ 127.313(g) and 127.313(h); and §§ 135.415(g) and 135.415(h). Current §§ 121.703(g), 127.313(g), and 135.415(g) contain provisions for air carriers to submit a report even when all of the information required is not available. Current

§§ 121.703(h), 127.313(h), and 135.415(h) contain provisions for air carriers to submit supplemental reports when they obtain additional report information. These paragraphs would be deleted because proposed §§ 121.703(e), 127.313(e), and 135.415(e) would require that the following information be included on all reports: manufacturer, model, serial number, and identification number of the aircraft; operator name; date; flight number; station; stage of flight when the failure, malfunction, or defect occurred; the nature of the failure, malfunction, or defect; the FAA-modified ATA code; and the aircraft total time and total In addition, proposed §§ 121.703(d), 125.409(d), 127.313(d), and 135.415(d) would require that the report be submitted within the 72-hour period. Therefore, the submission of an incomplete report as currently permitted under §§ 121.703(g), 127.313(g), and 135.415(g) would not meet the intent of the proposed rule. Further, the provision for the submission of any additional data as specified in current §§ 121.703(h), 127.313(h), and 135.415(h) would be unnecessary and might add information to SDRS that is not safety related. Sections 121.703(f), 125.409(f), 127.313(f), and 135.415(f)

Sections 121.703(f), 127.313(f), and 135.415(f) currently state that certificate holders that also hold Type Certificates (TC) (including Supplemental Type Certificates (STC)), Parts Manufacturer Authorization (PMA), or Technical Standard Order (TSO) authorization, or who are licensees of TC, need not report failures, malfunctions, or defects under these sections if the

failures are reported under § 21.3 or under Part 830 of the NTSB regulations. An equivalent § 125.409(f) would be added to provide consistency with parts 121, 127, and 135. In addition, §§ 121.703(f), 127.313(f), and 135.415(f) would be revised by deleting an obsolete reference to § 37.17. Part 37 was removed effective September 9, 1980.

### Sections 121.703(g), 125.409(g), 127.313(g), and 135.415(g)

These proposed paragraphs would allow part 121, 125, 127, and 135 certificate holders to delegate to a certificated domestic or foreign repair station the task of reporting a failure, malfunction, or defect discovered by the repair station. Currently, when a repair station finds a failure, malfunction, or defect, this information is reported by both the repair station under § 145.63(a) or § 145.79(c), as appropriate, and the part 121, 125, 127, or 135 certificate holder. Therefore, information about the same problem is reported twice to the FAA. The proposed revision is intended to eliminate these duplicate reports. However, the certificate holder would not be relieved of the responsibility to ensure that these reports are submitted. The proposed rule would require that the part 121, 125, 127, or 135 certificate holder receive a copy of the report submitted by the repair station.

## <u>Sections 121.704(a)(1), 125.410(a)(1), 127.314(a)(1), and 135.416(a)(1)</u>

The proposed rule would revise and incorporate the reporting requirements relating to defects in aircraft structures of current §§ 121.703(a)(14) and 121.703(a)(15) into § 121.704(a)(1); of current §§ 127.313(a)(10) and 127.313(a)(11) into § 127.314(a)(1); and of current §§ 135.415(a)(14) and 135.415(a)(15) into § 135.416(a)(1). An equivalent § 125.410(a)(1) also would be added. Proposed §§ 121.704(a)(1), 125.410(a)(1), 127.314(a)(1), and 135.416(a)(1) would contain provisions for reporting information relevant to structural defects of aging aircraft and corrosion protection. The required reporting would focus on discrepancies found in primary structure or principal structural elements relating to corrosion that exceed the manufacturer's Maintenance Manual (MM) allowable (As used in this paragraph, the MM includes the aircraft's Structural Repair Manual and other manufacturer's documents, which set forth maintenance requirements.) Sections 121.704(a)(2), 125.410 (a)(2), 127.314(a)(2), and 135.416(a)(2)

These proposed sections would revise the reporting requirements for parts 121, 127, and 135, and would add reporting requirements for part 125, for cracks detected only in a primary structure or principal structural element that require the repair or replacement of the structural element. Currently, §§ 121.703(a)(15), 127.313(a)(11), and 135.415(a)(15) require reporting of all cracks in aircraft structures even if the

location and size of the crack do not have safety-of-flight implications.

## <u>Sections 121.704(a)(3), 125.410(a)(3), 127.314(a)(3), and 135.416(a)(3)</u>

These proposed sections would include a reporting requirement for the detection of disbonding of any primary structure or principal structural element. Currently, air carriers may report disbonding in accordance with §§ 121.703(c), 127.313(c), or 135.415(c); however, this requirement should be explicit because reporting of disbonding defects is necessary in the early identification of safety-of-flight issues associated with aging aircraft.

## <u>Sections 121.704(a)(4), 125.410(a)(4), 127.314(a)(4), and 135.416(a)(4)</u>

These proposed sections would require air carriers to report failures or defects of primary structure or principal structural elements when data developed by a Designated Engineering Representative (DER), under SFAR-36, or other approved repair data that is not found in the manufacturer's MM is used to accomplish the repair.

Some air carriers are uncertain about whether the subsequent detection of the same failure or defect must be reported when the failure or defect was repaired using DER, SFAR-36, or other approved non-MM repair data. The proposed rule would explicitly require that air carriers shall report each and every occurrence of a failure or defect repaired in accordance with DER-approved or other non-MM repair data.

Some Part 135 aircraft may not have SRM's. Repairs accomplished within the limits of SRM's or MM are not reportable. Repairs developed outside these approved data sources are reportable whether the accepted or approved data is developed by a DER, under SFAR 36, or other approved repair data.

Sections 121.704(a)(5), 125.410(a)(5), 127.314(a)(5), and 135.416(a)(5)

These proposed sections would require the collection of information on any discrepancies found in primary structure or principal structural elements comprised of composite materials. The specific reporting of failures and defects of new and emerging technologies used in the manufacturing of aircraft structures is necessary in the early identification and resolution of problems that may have an adverse affect on safety. Sections 121.704(b), 125.410(b), 127.314(b), and 135.416(b)

The proposed sections would require that in addition to the reports required by proposed §§ 121.704(a), 125.410(a), 127.314(a), and 135.416(a), certificate holders would be required to report any other failure or defect that occurs or is detected in an aircraft structure if, in the opinion of the certificate holder, the failure or defect has endangered or may endanger the safe operation of any aircraft.

### Sections 121.704(c), 125.410(c), 127.314(c), and 135.416(c)

These proposed sections would relieve the certificate holder of the requirement to report discrepancies once a structural problem has been recognized by either an Airworthiness Directive (AD) or a manufacturer's Service Bulletin, provided that the

failure or defect falls within allowable published limits and restoration of the structure can be accomplished without modification of the published repair data. However, a requirement to continue to report known problems that have resulted in the issuance of an AD could be included as a part of the AD. Currently, the continued reporting of structural problems for which manufacturer repair data has been developed and published is saturating the SDRS. The continued reporting of known problems places an unnecessary reporting burden on air carriers and may impede the analysis and identification of new problems.

### Sections 121.704(d), 125.410(d), 127.314(d), and 135.416(d)

These proposed sections would require that each report be submitted to the location where the data base is maintained within the required reporting period. Currently, Service Difficulty Reports are submitted to the FAA FSDO charged with the overall inspection of the certificate holder. However, under the proposal, the certificate holder would be required to make the SDR data available to the FSDO for examination within the time limits specified above in a form and manner acceptable to the Administrator. This would allow PMI's to remain informed of SDR activity, improve the timeliness of FAA processing of the data, and increase the data's availability for analysis. This proposed section also would allow for the use of other means, such as electronic transmission via telephone facsimile or computer

modem, to submit reports to the FAA to increase the timeliness of reporting.

Proposed §§ 125.410(d) and 135.416(d) would include provisions for aircraft operating in areas where mail is not collected, thereby preventing submission within the required 72 hours. In such cases, the reports would be required to be submitted within 72 hours after the aircraft returns to a point where mail is collected.

### Sections 121.704(e), 125.410(e), 127.314(e), and 135.416(e)

Under the proposed rule, reports of structural problems would require information on: manufacturer, model, serial number, and registration number of the aircraft; operator name; nature of failure or defect and its location; FAA-modified ATA code; aircraft total time and cycles; and the date and station where the certificate holder found the discrepancy. Optional information would include the identification of the manufacturer's part number or the serial number of the part or component and the time since the last maintenance overhaul, repair, or inspection. To promote standardized reports, the FAA is currently revising a reporting form, FAA Form No. 8070-3 (see figure 2).

## Sections 121.704(f), 125.410(f), 127.314(f), and 135.416(f)

These proposed sections would include the current provisions of §§ 121.703(f), 127.313(f), and 135.415(f), which relieve a holder of a Type Certificate, Supplemental Type Certificate, PMA, or a TSO authorization or the licensee of a Type Certificate from

reporting any failure, malfunction, or defect under this section if reports are submitted on the same failure, malfunction, or defect under § 21.3 or under the accident reporting provisions of Part 830 of the NTSB regulations. Proposed § 125.410(f) would include a similar provision.

## Sections 121.704(g), 125.410(g), 127.314(g), and 135.416(g)

These proposed sections would allow part 121, 125, 127, and 135 certificate holders to delegate to a certificated repair station the task of reporting the detection of a failure, malfunction, or defect discovered by the repair station. Currently, when a repair station finds a failure, malfunction, or defect, this information is reported by both the repair station under § 145.63(a) or § 145.79(c), as appropriate, and the part 121, 125, 127, or 135 certificate holder. This proposed section would eliminate duplicate reporting of the same failures or defects but would not relieve the certificate holder of the responsibility for ensuring that the report is submitted to the FAA. In addition, the proposed rule would require that the certificate holder receive a copy of the report submitted by the repair station.

#### Sections 121.705, 127.315, and 135.417

Under the proposal, §§ 121.705(a), 127.315(a), and 135.417(a) would remain in effect, requiring that operators report to the Administrator interruptions to flights, unscheduled changes of aircraft en route, or unscheduled stops or diversions from routes, caused by known or suspected mechanical difficulties

or malfunctions that are not required to be reported under proposed §§ 121.703 and 121.704, 127.313 and 127.314, and 135.415 and 135.416, respectively. The requirements of current §§ 121.705(b) and (c), 127.315(b), and 135.417(b) would be deleted because this is reliability data and does not have safety-of-flight implications. In addition, these items currently are required to be monitored under § 121.373, 127.136, and 135.431.

#### Sections 125.409(b) and 127.313(b)

Under the proposal, § 127.313(b) would be corrected to state that, for the purposes of this section, during flight means the period from the moment the helicopter leaves the surface of the earth on (rather than "or") takeoff until it touches down on landing. An equivalent paragraph would also be added to § 125.409(b).

#### Section 127.313(a)(8)

The proposed rule would redesignate current § 127.313(a)(13) as § 127.313(a)(8). This paragraph concerns main rotor and auxiliary rotor systems.

#### Sections 145.63 and 145.79

The proposed rule would revise §§ 145.63 and 145.79 to allow certificated domestic and foreign repair stations, respectively, to be delegated by a part 121, 125, 127, or 135 certificate holder to submit operational and structural difficulty reports to the FAA on behalf of the certificate holder. A repair station would submit these reports, as delegated, when it discovers a

defect or unairworthy condition of an aircraft, powerplant, propeller, or any component thereof. When a certificated repair station submits a report for a part 121, 125, 127, or 135 certificate holder, the repair station would not be required to submit a separate report under §§ 145.63(a) or 145.79(c), as appropriate.

Currently, when a certificated repair station finds a defect or unairworthy condition, the repair station and the part 121, 125, 127, or 135 certificate holder report the condition or defect to the FAA. The proposed rule would require that only one report be submitted in such circumstances.

### Paperwork Reduction Act Approval

The burden associated with parts 121, 125, 127, 135, and 145 of the Federal Aviation Regulations has been approved by OMB under control numbers 2120-003, 2120-008, 2120-0010, 2120-0039, and 2120-0085.

This NPRM proposes only to clarify the reporting burden.

The clarification may cause a reduction in burden, because it may lead to a reduction in redundancy of reporting. Some 125 certificate holders may have a slight reduction in reporting.

There are no additional reporting requirements associated with this proposed rule.

#### Regulatory Evaluation Summary

Executive Order 12866 established the requirement that, within the extent permitted by law, a Federal regulatory action may be undertaken only if the potential benefits to society for

the regulation outweigh the potential costs to society. In response to this requirement, and in accordance with Department of Transportation (DOT) policies and procedures, the FAA has estimated the anticipated benefits and costs of this rulemaking action. The FAA has determined that this proposed rule is not a "significant rulemaking action," as defined by Executive Order 12866 (Regulatory Planning and Review), and is not considered significant under DOT Order 2100.5, Policies and Procedures for Simplification, Analysis, and Review of Regulations. The anticipated costs and benefits associated with this proposed rule are stated below.

The total number of reports submitted to the FAA is not expected to change substantially. Although more specific and detailed reports will generally be required, the clarification of reporting requirements should expedite the reporting process. Therefore, the costs of complying with the proposed rule change are not expected to differ significantly from the costs of complying with the present requirements. Increases in the volume of some types of reports are expected to be offset by decreases in the volume of other types of reports. New requirements to report on-ground incidents that may have implications for flight safety and those pertaining to aging aircraft issues should increase the volume of reports. Other provisions, however, such as the elimination of duplicate reporting by the air carriers and repair stations and the elimination of reports involving issues of reliability (e.g., unscheduled stops or diversions from

routes), would reduce the number of required reports. In addition, Part 125 operators would not be required to report as many incidents as is currently required. The FAA believes that the increased and decreased reporting requirements are offsetting but invites comments from the public regarding the validity of this assumption.

The purpose of the proposed rule is to enhance air carrier safety by clarifying and standardizing reporting requirements and facilitating the timely flow of information to the FAA. These data identify mechanical problems that may be a serious hazard to the operation of an aircraft. The information collected would be used to develop corrective actions to eliminate the identified problems. Increased standardization of these reports should make it easier for FAA personnel to interpret their significance, thereby reducing the number of manhours devoted by the FAA to processing and interpreting the information gleaned from these reports.

One major safety benefit would result from the clarification of reporting requirements that specifically address structural defects normally associated with aging aircraft. Another benefit would derive from the new requirement that air carriers report problems that occur during ground operations that could affect flight safety.

The proposed rule would also explicitly permit the submission of the required reports in an electronic form. Electronic submission of data will give the FAA more timely

information, thereby permitting earlier recognition of significant trends. In addition, the allowance of electronic reporting should reduce the processing and storage costs of the air carriers. The costs of duplicating these reports, mailing them to the FAA, and record-keeping should all be reduced. Because of the negligible nature of many of these processing costs, however, any cost-savings should be quite minor. In addition, the need for FAA-compatible equipment/software may dilute some of these cost-savings, at least initially. The FAA invites comments from the industry regarding the potential magnitude of these cost-savings.

### REGULATORY FLEXIBILITY DETERMINATION

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by government regulations. The RFA requires agencies to review rules that may have a "significant economic impact on a substantial number of small entities."

Under FAA Order 2100.14A, the criterion for a "substantial impact" is a number that is not less than 11 and that is more than one third of the small entities subject to the rule. For operators of aircraft for hire, a small operator is one that owns, but not necessarily operates, nine or fewer aircraft. The FAA's criterion for a "significant impact" is \$116,300 or more per year for a scheduled operator whose entire fleet has a seating capacity of 60 seats or more, \$65,000 for a scheduled

operator with a fleet including smaller aircraft, and \$4,600 or more for an unscheduled operator.

Any incremental costs or cost-savings per operator are likely to be nominal, however, for reasons previously noted. The FAA has therefore determined that the proposed rule would not have a significant impact on a substantial number of small entities. The FAA solicits comments from the affected segment of the aviation industry regarding the possible extent of any cost impacts.

#### INTERNATIONAL TRADE IMPACT ASSESSMENT

The incremental costs and cost savings associated with the proposed rule changes are not significant enough to result in relative trade advantages to either U.S. or foreign entities. Therefore, the FAA has determined that they would have no impact on the sale of foreign products domestically, or the sale of U.S. products in foreign markets.

#### Federalism Implications

The regulations proposed herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposed rule would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

#### Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and International Trade Impact Analysis, the FAA has determined that this proposed regulation is not a significant regulatory action under Executive Order 12866. - In addition, the FAA certifies that this proposal, if adopted, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This proposal is not considered significant under DOT Order 2100.5, Policies and Procedures for Simplification, Analysis, and Review of Regulations. The FAA has determined that a separate regulatory evaluation is not needed for this proposal, and all information related to the costs and benefits, including an initial Regulatory Flexibility Determination and an International Trade Impact Analysis, is included in this document under the heading "Regulatory Evaluation Summary."

#### List of Subjects

#### 14 CFR Part 121

Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements, Safety, Transportation.

#### 14 CFR Part 125

Aircraft,—Aviation safety, Reporting and recordkeeping requirements, Safety.

#### 14 CFR Part 127

Air carriers, Aircraft, Aviation safety, Helicopters, Reporting and recordkeeping requirements.

#### 14 CFR Part 135

Air taxis, Aircraft, Aviation safety, Reporting and recordkeeping requirements.

#### 14 CFR Part 145

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

#### The Proposed Amendment

In consideration of the foregoing, the Federal Aviation

Administration proposes to amend 14 CFR parts 121, 125, 127, 135,

and 145 of the Federal Aviation Regulations as follows:

## Part 121--CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

1. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g).

2. Section 121.703 is amended by revising the title and paragraphs (a) (1) through (a) (12) and paragraphs (c), (d), (e), (e) (1), (e) (3), (e) (7) through (e) (9), (f), and (g); redesignating paragraphs (a) (11), (a) (12), (e) (4), and (e) (5) as paragraphs (a) (7), (a) (8), (e) (8), and (e) (4), respectively; and

removing paragraphs (a)(13) through (a)(17), (e)(10), and (h), to read as follows:

#### § 121.703 Operational difficulty reports.

- (a) \* \* \*
- (1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;
- (2) Any false fire or smoke warnings that require the use of abnormal or emergency procedures;
- (3) An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;
- (4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes requiring the use of abnormal or emergency procedures;
- (5) Any engine flameout or shutdown during ground or flight operations, excluding intentional engine shutdowns during such operations (e.g., flight crew training, test flights, or while taxiing to reduce fuel consumption);
- (6) A propeller feathering system or ability of the system to control overspeed;
- (7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
- (8) A landing gear extension or retraction or the opening or closing of landing gear doors during flight;
- (9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground, excluding failures, malfunctions, or

defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213;

- (10) Any aircraft component or system that results in aborted takeoffs after initiation of the takeoff roll or the taking of abnormal or emergency actions during flight; and
- (11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment that is found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments, excluding failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213.
  - (b) \* \* \*
- (c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft.
- (d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged

with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day.

- (e) The certificate holder shall submit the reports required by this section in an electronic form or another form, acceptable to the Administrator. The reports shall include the information listed in paragraphs (e)(1) through (e)(6) and should include as much information that is available for paragraphs (e)(7) through (e)(9):
- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
- (3) The date; flight number; station where the failure, malfunction, or defect was detected; and the stage during which the failure, malfunction, or defect occurred (e.g., preflight, taxi, takeoff, climb, cruise, descent, approach, landing, or inspection).
  - (4) The nature of the failure, malfunction, or defect.
- (5) The applicable FAA modified Air Transport Association Specification 100 code (ATA code).
  - (6) The aircraft total time and total cycles.
  - (7) The engine or component serial number.

- (8) The emergency procedure effected.
- (9) Identification of the part and system involved, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization, or that is a licensee of a Type Certificate, need not report a failure, malfunction, or defect under this section if the certificate holder has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) The reports required by this section may be submitted by a certificated repair station when the reporting task has been delegated to it by a part 121 certificate holder. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 121 certificate holder. The part 121 certificate holder must receive a copy of each report.
- Section 121.704 is added to read as follows:
   \$ 121.704 Structural difficulty reports.
- (a) Each certificate holder shall report the occurrence or detection of each failure or defect of each primary structure or principal structural element, as defined in the manufacturer's

Maintenance Manual (which includes the aircraft's Structural Repair Manual and other manufacturer's documents that set forth maintenance requirements), related to--

- (1) Corrosion that requires rework or blendout that exceeds the manufacturer's MM allowable limits and requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (2) Cracks that require a repair or a complete or partial replacement of a primary structure or principal structural element;
- (3) Disbonding that requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (4) Failures or defects repaired in accordance with Designated Engineering Representative (DER) data or other approved data not contained in the manufacturer's MM; and
- (5) Any crack, fracture, or delamination of a primary structure or principal structural element composed of composite materials.
- (b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure or defect in aircraft structure that occurs or is detected at any time if, in its opinion, that failure or defect has endangered or may endanger the safe operation of any aircraft.

- (c) Reporting of any failure or defect pursuant to paragraphs (a) or (b) found after the issuance of an Airworthiness Directive or after the issuance of a manufacturer's Service Bulletin resulting from a failure or defect is not required, provided that the failure or defect falls within allowable published limits and restoration of the structure can be accomplished without modification of the published repair data.
- required by this section covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day.
- (e) The certificate holder shall submit the reports required by this section in an electronic form or another form, acceptable to the Administrator. The reports shall include the following information listed in paragraphs (e)1 through (e)6 and

should include as much information that is available for paragraph (e)(7):

- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
  - (3) The nature of the failure or defect and its location.
- (4) The FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (5) The aircraft total time and cycles.
- (6) The date and station where the failure or defect was discovered.
- (7) Identification of the part or component involved (e.g., manufacturer's part number and serial number) and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or that is a licensee of a Type Certificate, need not report a failure, malfunction, or defect under this section if the certificate holder has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) The reports required by this section may be submitted by a certificated repair station when the reporting task has been delegated to it by the part 121 certificate holder. However, the

responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 121 certificate holder. The part 121 certificate holder must receive a copy of each report.

4. Section 121.705 is amended by combining the introductory text and paragraph (a), and by deleting paragraphs (b) and (c), to read as follows:

#### § 121.705 Mechanical interruption summary report.

Each certificate holder shall regularly and promptly submit a summary report to the Administrator following each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under §§ 121.703 or 121.704.

# PART 125--CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE

5. The authority citation for part 125 is revised to read as follows:

Authority: 49 U.S.C. app. 1354, 1421 through 1430, and 1502; 49 U.S.C. 106(g)

6. Section 125.409 is amended by revising the title, revising paragraphs (a) and (b), and adding paragraphs (c) through (g) as follows:

#### § 125.409 Operational difficulty reports

- (a) Each certificate holder must report the occurrence or detection of each failure, malfunction, or defect in an aircraft concerning--
- (1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;
- (2) Any false fire or smoke warnings that require the use of abnormal or emergency procedures;
- (3) An engine exhaust system that causes damage to an engine, adjacent structure, equipment, or components;
- (4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes requiring the use of abnormal or emergency procedures;
- (5) Any engine flameout or shutdown during ground or flight operations, excluding intentional engine shutdowns during such operations (e.g., flight crew training, test flights, or taxiing to reduce fuel consumption);
- (6) A propeller feathering system or ability of the system to control overspeed;
- (7) A fuel or fuel dumping system that affects fuel flow or causes hazardous leakage during flight;
- (8) A landing gear extension or retraction or the opening or closing of landing gear doors during flight;
- (9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground, excluding failures, malfunctions, or

defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213;

- (10) Any aircraft component or system that results in aborted takeoffs after initiation of the takeoff roll or the taking of abnormal or emergency actions during flight; and
- (11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment that is found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments, excluding failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213.
- (b) For the purposes of this section, during flight means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.
- (c) In addition to the reports required by paragraph (a) of this section, each certificate holder must report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft it uses.
- (d) Each certificate holder must submit each report required by this section as prescribed in paragraphs (a) and (c), covering each 24-hour period beginning at 0900 local time of each

day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also must make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 72 hours after the aircraft returns to a point where mail is collected.

- (e) The certificate holder shall submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports shall include the following information in items 1 to 6 and should include as much information that is reasonably available for items 7 to 9:
- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
- (3) The date; flight number; station where the failure, malfunction, or defect was detected; and the stage during which the failure, malfunction, or defect occurred (e.g., preflight, taxi, takeoff, climb, cruise, descent, approach, landing, or inspection).

- (4) The nature of the failure, malfunction, or defect.
- (5) The applicable FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (6) The aircraft total time and total cycles.
  - (7) The engine or component serial number.
- (8) The emergency procedure effected (e.g., unscheduled landing and emergency descent).
- (9) Identification of the part and system involved, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization or that is a licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by a part 125 certificate holder, under the provisions of §§ 145.63(d)(2) or 145.79(e)(2) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the

part 125 certificate holder. The part 125 certificate holder must receive a copy of each report.

7. Section 125.410 is added to read as follows: § 125.410 Structural difficulty reports

- (a) Each certificate holder shall report the occurrence or detection of each failure or defect of each primary structure or principal structural element, as defined in the manufacturer's Maintenance Manual (which includes the aircraft's Structural Repair Manual and other manufacturer's documents that set forth maintenance requirements) related to--
- (1) Corrosion that requires rework or blendout that exceeds the manufacturer's Maintenance Manual (MM) allowable limits and requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (2) Cracks that require a repair or a complete or partial replacement of a primary structure or principal structural element;
- (3) Disbonding that requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (4) Failures or defects repaired in accordance with Designated Engineering Representative (DER) data or other approved data not contained in the manufacturer's MM; and
- (5) Any crack, fracture, or delamination of a primary structure or principal structural element composed of composite materials.

- (b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure or defect in aircraft structure that occurs or is detected at any time if, in its opinion, that failure or defect has endangered or may endanger the safe operation of any aircraft it uses.
- (c) Reporting of any failure or defect pursuant to paragraphs (a) or (b) found after the issuance of an Airworthiness Directive or after the issuance of a manufacturer's Service Bulletin resulting from a failure or defect is not required, provided that the failure or defect falls within allowable published limits and restoration of the structure can be accomplished without modification of the published repair data.
- (d) Each certificate holder shall submit each report required by this section, as prescribed in paragraphs (a) and (b), covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is

due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 72 hours after the aircraft returns to a point where the mail is collected.

- (e) The certificate holder must submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports must include the following information in items 1 to 6 and should include as much information that is reasonably available for item 7:
- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
  - (3) The nature of the failure or defect and its location.
- (4) The FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (5) The aircraft total time and cycles.
- (6) The date and station where the failure or defect was discovered.
- (7) Identification of the part or component involved (e.g., manufacturer's part number and serial number) and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization or that is a licensee of a Type Certificate need not report a failure, malfunction, or defect under this section

- if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by the part 125 certificate holder under the provisions of §§ 145.63(d)(2) or 145.79(e)(2) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 125 certificate holder. The part 125 certificate holder must receive a copy of each report.

### Part 127--CERTIFICATION AND OPERATIONS OF SCHEDULED AIR CARRIERS WITH HELICOPTERS

8. The authority statement for part 127 continues to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1421, 1422, 1423, 1424, 1425, 1430; 49 U.S.C. 106(g).

9. Section 127.313 is amended by revising the title and paragraphs (a) (1) through (a) (11) and paragraphs (b), (c), (d), (e), (e), (e) (1), (e) (3), (e) (5), (e) (6), (e) (7), (f) and (g); redesignating paragraphs (a) (13), (e) (4), and (e) (5) as paragraphs (a) (8), (e) (8), and (e) (4), respectively; revising paragraph (e) (6) and redesignating it as (e) (9); and removing paragraphs (a) (12), (a) (13), and (h) to read as follows:

#### § 127.313 Operational difficulty reports.

- (a) \* \* \*
- (1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;
- (2) Any false fire or smoke warnings that require the use of abnormal or emergency procedures;
- (3) An engine exhaust system that causes damage to an engine, adjacent structure, equipment, or components;
- (4) A helicopter component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes requiring the use of abnormal or emergency procedures;
- (5) Any engine flameout or shutdown during ground or flight operations, excluding intentional engine shutdowns during such operations (e.g., flight crew training, test flights, or taxiing to reduce fuel consumption);
- (6) A fuel or fuel dumping system that affects fuel flow or causes hazardous leakage during flight;
- (7) Any helicopter component or system that results in aborted takeoffs after initiation of the takeoff or the taking of abnormal or emergency actions during flight;
  - (8) Main rotor or auxiliary rotor system; and
- (9) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment that is found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or

inadvertent deployments, excluding failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213.

- (10) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;
- (11) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground.
- (b) For the purposes of this section during flight means the period from the moment the helicopter leaves the surface of the earth on takeoff until it touches down on landing.
- (c) In addition to the reports required by paragraph (a) of this section, each air carrier shall report any other failure, malfunction, or defect in a helicopter, system, component, or powerplant that occurs or is detected at any time if, in the air carrier's opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the helicopter it uses.
- (d) Each air carrier shall submit each report required by this section as prescribed in paragraphs (a) and (c), covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the

Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day.

- (e) The air carrier shall submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports shall include the following information in items 1 to 6 and should include as much information that is reasonably available for items 7 to 9:
- (1) Manufacturer, model, serial number, and registration number of the helicopter.
  - (2) The name of the air carrier.
- (3) The date; flight number; station where the failure, malfunction, or defect was detected; and the stage during which the failure, malfunction, or defect occurred (e.g., preflight, taxi, takeoff, climb, cruise, descent, landing, or inspection).
  - (4) The nature of the failure, malfunction, or defect.
- (5) The applicable FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (6) The helicopter total time and total cycles.
  - (7) The engine or component serial number.
- (8) The emergency procedure effected (e.g., unscheduled landing and emergency descent).
- (9) Identification of the part and system involved, including available information pertaining to type designation of

the major component and the time since the last maintenance overhaul, repair, or inspection.

- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization, or that is a licensee of a Type Certificate, need not report a failure, malfunction, or defect under this section if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by a part 127 air carrier, under the provisions of §§ 145.63(d)(3) or 145.79(e)(3) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 127 air carrier. The part 127 air carrier must receive a copy of each report.
  - 10. Section 127.314 is added to read as follows:

#### § 127.314 Structural difficulty reports

(a) Each air carrier shall report the occurrence or detection of each failure or defect of each primary structure or principal structural element as defined in the manufacturer's Maintenance Manual (which includes the aircraft's Structural

Repair Manual and other manufacturer's documents that set forth maintenance requirements) related to--

- (1) Corrosion that requires rework or blendout that exceeds the manufacturer's Maintenance Manual (MM) allowable limits and requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (2) Cracks that require a repair or a complete or partial replacement of a primary structure or principal structural element;
- (3) Disbonding that requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (4) Failures or defects repaired in accordance with Designated Engineering Representative (DER) data or other approved data not contained in the manufacturer's MM; and
- (5) Any crack, fracture, or delamination of a primary structure or principal structural element composed of composite materials.
- (b) In addition to the reports required by paragraph (a) of this section, each air carrier shall report any other failure or defect in helicopter structure that occurs or is detected at any time if, in its opinion, that failure or defect has endangered or may endanger the safe operation of any helicopter it uses.
- (c) Reporting of any failure or defect pursuant to paragraphs (a) or (b) found after the issuance of an Airworthiness Directive or after the issuance of a manufacturer's

Service Bulletin resulting from a failure or defect is not required, provided that the failure or defect falls within allowable published limits and restoration of the structure can be accomplished without modification of the published repair data.

- (d) Each air carrier shall submit each report required by this section, as prescribed in paragraphs (a) and (b), covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day.
- (e) The air carrier shall submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports shall include the following information in items 1 to 6 and should include as much information that is reasonably available for item 7:
- (1) Manufacturer, model, serial number, and registration number of the helicopter.
  - (2) The name of the operator.

- (3) The nature of the failure or defect and its location.
- (4) The FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (5) The helicopter total time and cycles.
- (6) The date and station where the failure or defect was discovered.
- (7) Identification of the part or component involved (e.g., manufacturer's part number and serial number) and the time since the last maintenance overhaul, repair, or inspection.
- (f) An air carrier that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization or that is a licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by the part 127 air carrier under the provisions of §§ 145.63(d)(3) or 145.79(e)(3) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 127 air carrier. The part 127 air carrier shall receive a copy of each report.

11. Section 127.315 is amended by combining the introductory text and paragraph (a), and by deleting paragraph (b) to read as follows:

#### § 127.315 Mechanical interruption summary report.

Each certificate holder shall regularly and promptly submit a summary report to the Administrator following each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under §§ 127.313 or 127.314.

#### PART 135--AIR TAXI OPERATORS AND COMMERCIAL OPERATORS

12. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355(a), 1421 through 1431, and 1502; 49 U.S.C. 106(g).

13. Section 135.415 is amended by revising the title and paragraphs (a) (1) through (a) (11), and paragraphs (c), (d), and (e), (e) (1), (e) (3), (e) (5), (e) (6), (e) (7), (f), and (g); redesignating paragraph (a) (11) as paragraph (a) (7); and revising and redesignating paragraphs (a) (12) and (e) (5) as (a) (8) and (e) (9), respectively; and removing paragraphs (a) (12) through (a) (16) and paragraph (h) to read as follows:

#### 135.415 Operational difficulty reports

(a) \* \* \*

- (1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;
- (2) Any false fire or smoke warnings that require the use of abnormal or emergency procedures;
- (3) An engine exhaust system that causes damage to an engine, adjacent structure, equipment or components;
- (4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes requiring the use of abnormal or emergency procedures;
- (5) Any engine flameout or shutdown during ground or flight operations, excluding intentional engine shutdowns during such operations (e.g. flight crew training, test flights, or taxiing to reduce fuel consumption);
- (6) A propeller feathering system or ability of the system to control overspeed;
- (7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
- (8) A landing gear extension or retraction or the opening or closing of landing gear doors during flight;
- (9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground, excluding failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213;

- (10) Any aircraft component or system that results in aborted takeoffs after initiation of the takeoff roll or the taking of abnormal or emergency actions during flight; and
- (11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment that is found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments, excluding failures, malfunctions, or defects that are deferrable according to the Minimum Equipment List as provided for in § 91.213.
  - (b) \* \* \*
- (c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft it uses.
- (d) Each certificate holder shall submit each report required by this section as prescribed in paragraphs (a) and (c), covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall

inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 72 hours after the aircraft returns to a point where mail is collected.

- (e) The certificate holder shall submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports must include the following information in items 1 to 6 and should include as much information that is reasonably available for items 7 to 9:
- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
- (3) The date; flight number; station where the failure, malfunction, or defect was detected; and the stage during which the failure, malfunction, or defect occurred (e.g., preflight, taxi, takeoff, climb, cruise, descent, approach, landing, or inspection).
  - (4) The nature of the failure, malfunction, or defect.
- (5) The applicable FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (6) The aircraft total time and total cycles.

- (7) The engine or component serial number.
- (8) The emergency procedure effected (e.g., unscheduled landing and emergency descent).
- (9) Identification of the part and system involved, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization or that is a licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.
- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by a part 135 certificate holder, under the provisions of §§ 145.63(d)(4) or 145.79(e)(4) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 135 certificate holder. The part 135 certificate holder shall receive a copy of each report.

14. Section 135.416 is added to read as follows: § 135.416 Structural difficulty reports

- (a) Each certificate holder shall report the occurrence or detection of each failure or defect of each primary structure or principal structural element as defined in the manufacturer's Maintenance Manual (which includes the aircraft's Structural Repair Manual and other manufacturer's documents that set forth maintenance requirements) related to--
- (1) Corrosion that requires rework or blendout that exceeds the manufacturer's Maintenance manual (MM) allowable limits and requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (2) Cracks that require a repair or a complete or partial replacement of a primary structure or principal structural element;
- (3) Disbonding that requires a repair or a complete or partial replacement of a primary structure or principal structural element;
- (4) Failures or defects repaired in accordance with Designated Engineering Representative (DER) data or other approved data not contained in the manufacturer's MM; and
- Any crack, fracture, or delamination of a primary structure or principal structural element composed of composite materials.
- (b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other

failure or defect in aircraft structure that occurs or is detected at any time if, in its opinion, that failure or defect has endangered or may endanger the safe operation of any aircraft it uses.

- (c) Reporting of any failure or defect pursuant to paragraphs (a) or (b) found after the issuance of an Airworthiness Directive or after the issuance of a manufacturer's Service Bulletin resulting from a failure or defect is not required, provided that the failure or defect falls within allowable published limits and restoration of the structure can be accomplished without modification of the published repair data.
- required by this section, as prescribed in paragraphs (a) and (b), covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the location where the data base is maintained. Each certificate holder also shall make the report data available for examination by the Flight Standards District Office charged with the overall inspection of the certificate holder in a form and manner acceptable to the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 72 hours. However, a report that is due on Saturday or Sunday may be submitted on the following Monday, and one that is due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports

may be submitted within 72 hours after the aircraft returns to a point where the mail is collected.

- (e) The certificate holder shall submit the reports required by this section in an electronic form or another form acceptable to the Administrator. The reports must include the following information in items 1 to 6 and should include as much information that is reasonably available for item 7:
- (1) Manufacturer, model, serial number, and registration number of the aircraft.
  - (2) The name of the operator.
  - (3) The nature of the failure or defect and its location.
- (4) The FAA-modified Air Transport Association Specification 100 code (ATA code).
  - (5) The aircraft total time and cycles.
- (6) The date and station where the failure or defect was discovered.
- (7) Identification of the part or component involved (e.g., manufacturer's part number and serial number) and the time since the last maintenance overhaul, repair, or inspection.
- (f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a Technical Standard Order (TSO) authorization or that is a licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if it has reported the failure, malfunction, or defect under § 21.3 of this chapter or under the accident reporting provisions

of part 830 of the regulations of the National Transportation Safety Board.

- (g) Reports prescribed in paragraph (e) of this section may be submitted by a certificated repair station when the reporting task has been delegated by the part 135 certificate holder under the provisions of §§ 145.63(d)(4) or 145.79(e)(4) of this chapter. However, the responsibility for ensuring compliance with the provisions of this section may not be delegated by the part 135 certificate holder. The part 135 certificate holder shall receive a copy of each report.
- 15. Section 135.417 is amended by combining the introductory text and paragraph (a), and by deleting paragraph (b), to read as follows:

#### § 135.417 Mechanical interruption summary report.

Each certificate holder shall regularly and promptly submit a summary report to the Administrator following each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under §§ 135.415 or 135.316.

#### PART 145 -- REPAIR STATIONS

16. The authority citation for part 145 is revised to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355, 1421, and 1427.

- 17. Section 145.63 is amended by adding paragraphs (d) and (e) to read as follows:
- § 145.63 Reports of defects or unairworthy conditions.

\* \* \* \* \*

- (d) A certificated domestic repair station may submit an operational or structural difficulty report for--
- (1) A part 121 certificate holder under §§ 121.703(g) or 121.704(g) provided that the report meets the requirements of §§ 121.703(d) and 121.703(e) or §§ 121.704(d) and 121.704(e) of this chapter, as appropriate;
- (2) A part 125 certificate holder under §§ 125.409(g) or 125.410(g) provided that the report meets the requirements of §§ 125.409(d) and 125.409(e) or §§ 125.410(d) and 125.410(e) of this chapter, as appropriate;
- (3) A part 127 certificate holder under §§ 127.313(g) or 121.314(g) provided that the report meets the requirements of §§ 127.313(d) or 127.313(e) or §§ 127.314(d) and 127.314(e) of this chapter, as appropriate; or
- (4) A part 135 certificate holder under §§ 135.415(g) or 135.416(g) provided that the report meets the requirements of §§ 135.415(d) and 135.415(e) or §§ 135.416(d) and 135.416(e) of this chapter, as appropriate.
- (e) A certificated domestic repair station authorized to report a failure, malfunction, or defect under paragraph (d) of this section need not report the same failure, malfunction, or defect under paragraph (a) of this section. A copy of the report

submitted under paragraph (d) of this section shall be forwarded to the certificate holder.

18. Section 145.79 is amended by adding paragraphs (e) and (f) to read as follows:

#### § 145.79 Records and reports.

\* \* \* \* \*

- (e) A certificated foreign repair station may submit an operational or structural difficulty report for--
- (1) A part 121 certificate holder under §§ 121.703(g) or 121.704(g) provided that the report meets the requirements of §§ 121.703(d) and 121.703(e) or §§ 121.704(d) and 121.704(e) of this chapter, as appropriate;
- (2) A part 125 certificate holder under §§ 125.409(g) or 125.410(g) provided that the report meets the requirements of §§ 125.409(d) and 125.409(e) or §§ 125.410(d) and 125.410(e) of this chapter, as appropriate;
- (3) A part 127 certificate holder under §§ 127.313(g) or 121.314(g) provided that the report meets the requirements of §§ 127.313(d) or 127.313(e) or §§ 127.314(d) and 127.314(e) of this chapter, as appropriate; or
- (4) A part 135 certificate holder under §§ 135.415(g) or 135.416(g) provided that the report meets the requirements of §§ 135.415(d) and 135.415(e) or §§ 135.416(d) and 135.416(e) of this chapter, as appropriate.

(f) A certificated domestic repair station authorized to report a failure, malfunction, or defect under paragraph (d) of this section need not report the same failure, malfunction, or defect under paragraph (a) of this section. A copy of the report submitted under paragraph (d) of this section shall be forwarded to the certificate holder.

Issued in Washington, DC, on